NOAA REPORT



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NWS Protecting Weather Buoys:

Mariners are being reminded to steer clear of weather buoys following a recent incident in the Gulf of Maine that will affect the quality of weather forecasts there for months to come, reports the National Weather Service's National Data Buoy Center.

Meteorologists use data gathered by these sea-going weather sentinels to make forecasts vital to commercial and sport fishermen and Coast Guard searchandrescuemissions. The buoys monitor wind speed and direction, surface water temperature, air temperature, barometric pressure and wave

NEWS BRIFFS

information on an hourly basis over vast expanses of ocean, where there are no other sources of data. A buoy in the Gulf of Maine nearly sank in October 1993 after it was damaged after a collision with a marine vessel. Two more buoys have been damaged recently when commercial fishing gear became entangled in the buoy moorings.

Experimental Fishing Operation to be Tried to Save N.E. Haddock: As a result of concerns about overfished haddock stocks off New England and the danger to the long-term viability of this industry in the region, an emergency measure, closing a large part of Georges Bank in the Northwest Atlantic to groundfishing and severely limiting haddock catches off New England, went into effect Jan. 3. In response to

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NMFS, DoC Approve Plan to Rebuild NE Groundfish

ommerce Department Secretary Ronald H. Brown has approved a plan to begin restoring stocks such as cod, haddock and yellowtail flounder by reducing fishing off New England 50 percent over the next five to seven years. The action comes in response to a virtual collapse of the New England groundfish stocks.

Brown also announced that he is proposing that \$2.5 million be made available to communities as an initial effort to address the economic effects of the decline of the northeast

fisheries.

The restrictions will have a major effect on New England fishermen, National Marine Fisheries Service Director Rolland Schmitten said. However, additional measures may be needed because some stocks are in such poor condition. He said haddock stocks, for example, are at about six percent of 1960s levels.

"This plan calls for measures that impose significant restrictions," Schmitten added. "But if we fail to

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CFC Substitute Called 'Ozone Friendly' in Paper

OAA scientists have confirmed that hydrofluorocarbons, or HFCs, are an environmentally sound substitute for chlorofluorocarbons, or CFCs, as a coolant for automobile air conditioners and other refrigeration systems.

Scientific evidence has demonstrated that CFCs cause significant reductions of the ozone layer in the Earth's atmosphere. This resulted in an international agreement that they be phased out by 1996.

NOAA scientists and NOAAsupported researchers at NOAA's Aeronomy Laboratory in Boulder, Colo., used sophisticated laboratory measurements and computer modeling to determine that HFCs do not significantly deplete stratospheric ozone and are an environmentally safe alternative to CFCs.

Their findings appeared in the Jan. 7 issue of *Science* magazine in an article titled, Do Hydrofluorocarbons Destroy Stratospheric Ozone?

The laboratory work was carried out by NOAA chemists A. R. Ravishankara and C. J. Howard: University of Colorado post-doctoral fellow Andrew A. Turnipseed; Danish post-doctoral fellow Niels R. Jensen; and University of Colorado graduate student Stephen Barone. The comcontinued on page 7

Economic Aid Proposed for New England Fishing Areas

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act now, the resource will be lost and the future economic base of many New England communities will be undermined."

\$1M in Economic Aid

Commerce also announced it will invite affected northeast fishing communities to submit applications for \$1 million made available through Economic Development Administration (EDA) funds for planning grants. The proposal will fund about eight to 10 grants designed to determine how communities can best respond to changes in the fishing industry.

The department is also evaluating proposals to spend \$1.5 million in Federal funds appropriated by Congress last year to assist fishermen

during the period of stabilizing and rebuilding the stocks.

The historic reductions in fishing effort were deemed necessary by the New England Fishery Management Council, which prepared the plan, and by the department because of record low numbers of fish. Groundfish landings, according to fisheries service scientists, fell 30 percent between 1990 and 1992.

Of particular concern, say the scientists, is the small number of haddock capable of producing young—the so-called spawning stock. The Georges Bank haddock spawning stock over the past 30 years has been reduced from about 160,000 metric tons to approximately 10,000 metric tons in 1993.

Modification of Measures Asked



After 71 days away from its home port at the Pacific Marine Center in Seattle, the NOAA ship Rainier recently returned from Prince William Sound, Alaska. The ship has spent a total of 213 days away from home port this year producing hydrographic surveys that will be used to create and update nautical charts. The ship, commissioned in 1968, is designed for deployment to remote areas in Alaska and the Pacific where survey field parties would not be logistically feasible. Rainier is 231 feet in length and carries four 29-foot aluminum-hulled survey launches, a 19-foot Monark and two 17-foot Boston Whalers. Rainier is staffed by ten NOAA Corps officers and 50 civilian-wage marine employees.

In response to fishing industry and community concerns, the department has asked the council to consider immediate modification of several management measures, including the size of vessels that are exempt from effort control measures. The department will also delay for at least six months the effective date for installation of vessel-tracking systems on affected vessels to give fishermen time to adjust to the new regulations.

Brown also agreed to initiate an experimental fishery in order to gather more data about the status of the stocks and will authorize up to 20 fishing trips for this purpose. The department is also asking the Mid-Atlantic Fishery Management Council to coordinate with the New England Council to make sure there are no restrictions that might deter New England fishermen from switching their efforts to healthier stocks. Meetings in Northeast Planned

Commerce's Office of Sustainable Development, led by John Bullard, will hold a series of meetings in the northeast to help communities plan their future. Beginning in late January, Bullard will lead a team of officials to Gloucester, New Bedford, and Chatham in Massachusetts. In Maine, the team will go to Portland and Ellsworth, and then on to Point Judith, R.I., Long Island, N.Y. and Cape May, N.J.

The principal measures approved in the new plan include:

- A moratorium on most new entrants into the fisheries;
- ☐ A phased-in system to reduce fishing, in which owners of most vessels more than 45 feet long must choose between taking gradual reductions in fishing time based on their historical days at sea, or a combination of reduced fishing time and increased time at the dock between fishing trips.

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Gold, Silver and Bronze Medals and Administrator's Awards

NOAA and the Department of Commerce gave out their annual Gold, Silver and Bronze Medals and Administrator's Awards for outstanding achievement. Here's a list of all winners, and just what they did to earn their honors. Congratulations to all!

GOLD MEDAL

These NOAA employees and groups were awarded the Commerce Department's Gold Medal:

All National Weather Service employees, for their collective performance during last summer's flooding in the Midwest;

The National Meteorological Center's Development and Meteorological Operations Divisions, Camp Springs, Md., for creating and continually improving global and regional computer simulations of the atmosphere, preventing many deaths and injuries along the path of the March 13-14, 1993 "Storm of the Century" blizzard;

The NWS Honolulu office, for its service from September 7-12, 1992, during Hurricane Iniki;

Lt. Cmdr. Steve Stringfellow, George Ringstad and Lt. Timothy Trembley, NOAA Corps' Pacific Marine Center, Seattle, for outstanding performance and unusual competence in an emergency resulting in the saving of a diver's life;

Daniel L. Albritton, director, OAR's Aeronomy Laboratory, Boulder, Colo., for national and international leadership in effective communication of the science of stratospheric ozone depletion and global warming;

Margot H. Ackley, Donald W. Beran, Russell B. Chadwick and

David E. Small, OAR's Forecast Systems Laboratory, Boulder, Colo., for their leadership in creating the world's first major wind profiler network, significantly advancing weather forecasting capabilities;

Nancy Foster, NMFS Deputy Assistant Administrator, Silver Spring, Md., for her stewardship of the country's living marine resources and for revitalizing the fishery service's habitat program;

Arnold Gruber, NESDIS's Office of Research and Applications, Suitland, Md., for outstanding work in developing a satellite data product that has enabled scientists to better understand climate variations caused by El Niño;

Yoshio Kurihara, OAR's Geophysical Fluid Dynamics Laboratory, Princeton, N.J., for his research over the past 20 years which has provided remarkable physical insights into the dynamics of tropical storms;

Alexander MacDonald, director, OAR's Forecast Systems Laboratory, Boulder, Colo., for leadership in developing programs to improve the Nation's weather services through technology transfer to the operational community;

Usha Varanasi, NMFS's Northwest Fisheries Science Center, Seattle, for her leadership in the fields of marine pollution and habitat conservation, and her pioneering research into the fate and effects of petroleum hydrocarbons on marine life forms.

SILVERMEDAL

These NOAA employees and groups were awarded the Commerce Department's Silver Medal:

The 110 employees of **NWS's Systems Operation Center**, Silver
Spring, Md., for their role in upgrading and relocating the weather
service's central data communication
facility;

NESDIS's Ground System Division, Suitland, Md., for outstanding work in helping to implement major ground systems to ensure continuing environmental satellite coverage for the U.S.;

James M. Coe, Michael L. Dahlberg, Shannon M. Fitzgerald, Steven E. Ignell, Linda L. Jones and Jerry A. Wetherall, NMFS's Driftnet Research Program, based in Seattle, for work in initiating and conducting scientific evaluations of the impacts of foreign driftnet fishing on the living marine resources of the U.S.;

James C. Dixon, Stephen Dekrone, Richard James, Bradford Wynn and Richard F. Edwing, NOS's Ocean and Lake Levels Division, Silver Spring, Md., for scientific achievement as part of a team establishing a Global Sea Level Monitoring Station in Antarctica;

Keith W. Dixon, Ronald C. Pacanowski and Anthony J. Rosati, OAR's Geophysical Fluid Dynamics Laboratory, Princeton, N.J., for transforming the Lab's ocean model into one of the foremost research tools widely available to the oceanographic community;

Lloyd C. Huff, NOS's Coast and Geodetic Survey, Silver Spring, Md., for developing technology that radically advances the state of the art in underwater surveying;

Lawrence J. Krudwig, NWS's Central Region Headquarters, Kansas City, for significant contributions to

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the NWS severe weather warning and dissemination program;

Sydney Levitus, NESDIS's National Oceanographic Data Center, Suitland, Md., for outstanding work in global change research through oceanographic data archeology and rescue;

Thomas R. Loughlin and Richard L. Merrick, NMFS's National Marine Mammal Laboratory, Seattle, for outstanding research in determining the status and trends of Steller sea lions for listing under the Endangered Species Act;

Donna Marino, Paul Pegnato, Adrienne Davis, Darrell Mottley and Charlotte Logan, Facilities Management Division, Silver Spring, Md., for dedication and commitment to excellence in developing the new NOAA headquarters campus in Silver Spring;

Wolfgang Paul Menzel, NESDIS's Office of Research and Applications, Madison, Wisc., for outstanding work in developing techniques for measuring winds from

> Meteosat 3, a European satellite on loan to the U.S.;

David F. Parrish and John C. Derber, National Meteorological Center's Development Division, Camp Springs, Md., for developing a new method of processing atmospheric data needed for global forecasting, an achievement called a major improvement in global forecast accuracy;

Carven A. Scott, David M. Henry, Kraig B. Gilkey, Carl F. Dierking and Paul E. Shannon, NWS's Alaska Region, for their contributions in designing a stateof-the-art computer network used to provide forecasters an improved capability for real-time

forecasts and warnings in Alaska;

David Zilkoski, NOS's Coast and Geodetic Survey, Silver Spring, Md., for work in modernizing the world's spatial reference system, the fundamental basis for the longitude, latitude and altitude measurements that are indispensable for thousands of surveying, construction, research, military and other applications.



These NOAA employees and groups were awarded NOAA's Bronze Medal:

NESDIS's Office of System Development and International Affairs, Suitland, Md., for major contributions to the U.S. land remote-sensing program;

A team of NESDIS lawyers, contract specialists, engineers, technicians and managers for negotiating the loan of the European Meteosat-3 weather satellite to the U.S. and installing associated ground equipment;

NWS's Asheville (N.C.) Office, for issuing extremely effective and timely flash flood warnings during two major floods in 1992;

NWS's New York City Office, for services during the Great Nor'easter storm of December 1992;

NOAA Financial Vulnerability Task Force, Office of Administration, Germantown, Md., for leadership by identifying financial management vulnerabilities and implementing effective corrective actions;

NWS's System Development
Office Design and Development
Team, Silver Spring, Md., for their
work in the highly successful design
and development of the Automation
of Field Operations and Services
(AFOS) System Z field office upgrade;

NMFS's Office of International



When you win a NOAA award, everybody wants to know you. That seems to be the case for Margaret Gross, lead fire weather forecaster for the National Weather Service in Riverside, Calif. and winner of a NOAA Administrator's Award. After the devastating fires in southern California, Gross was part of the team that accompanied Secretary Ron Brown on a helicopter tour of the area (top photo) along with NWS regional director Tom Potter (left). Later (bottom photo), she got a visit from ABC's Good Morning America weathercaster, Spencer Christian (left), and National Forest Service fire fight coordinator Earl Clayton.

NOAA Public Affairs Assistant Jeanne Kouhestani helped immensely with the compilation of this awards list.

Affairs, Silver Spring, Md., for work in supporting industry and public policy to enhance U.S. aquaculture opportunities;

David A. Somerton, Bert S. Kikkawa, Christofer H. Boggs and Christopher D. Wilson, NMFS, based in Alaska, Hawaii and Seattle, for the invention and refinement of hook timers that measure individual fish capture times and their application to fisheries stock assessment;

Russell W. Agreen, Robert E. Cheney, Nancy S. Doyle, Karen M. Marks and David C. McAdoo, NOS's Geoscience Laboratory, Silver Spring, Md., for advancement of geophysics by preparing, analyzing and disseminating altimeter data from the Geosat geodetic satellite mission;

Edward E. Allen, NOS's Coast and Geodetic Survey, Silver Spring, Md., for work in implementing new technologies and increasing productivity in his management of NOAA mapping projects;

Charles F. Anderson, NOS's Aeronautical Charting Division, Silver Spring, Md., for his leadership in the production of the *Terminal Procedures Publication*, which provides vital information about procedures at airport terminals throughout the country;

Howard L. April, NWS's International Affairs Branch, Silver Spring, Md., for representing the U.S. before the United Nations' World Meteorological Organization;

Mary J. Berklund, Barbara L. Chriss, Andria L. Doye, Deborah G. Lewis and Rebecca A. Williams, Office of Administration, Silver Spring, Md., for service to NOAA and the Commerce Department, in the classification and staffing of the NOAA Systems Program Office;

Chandrakant M. Bhumralkar, OAR, Silver Spring, Md., for developing research strategies that filled a major void in NOAA's climate modeling work and for significant contributions to NOAA's weather

research:

Joan M. Brundage, Carl S. Bullock and Thomas J. LeFebvre, OAR's Forecast Systems Laboratory, Boulder, Colo., for their contributions to the development of a new weather forecasting workstation that is a critical element in the NWS modernization:

Thomas G. Burtt, NESDIS's Satellite Services Division, Suitland, Md., for work in providing training materials to meteorologists around the world;

Charles M. "Mike" Callahan, NWS's Louisville (Ky.) Weather Service Forecast Office, for work in developing a computer program to manage critical hydrologic information;

Colleen Coogan, NMFS's
Northeast Center, Gloucester, Mass.,
for work in sea turtle conservation,
seal disease and
the rescue of
protected species;

J. Paul Dallavalle and John J. Jensenius, **NWS's Synoptic** Scale Techniques Branch, Camp Springs, Md., for work in improving statistical techniques, software and procedures necessary for a nationwide computer model, important in determining characteristics over the globe as much as eight or more days in advance;

David B.
Duane, OAR's
Deputy Assistant
Administrator for
Extramural
Research, Silver
Spring, Md., for

his leadership and management of national marine science and engineering programs;

Essie Duffie, NMFS's Southeast Fisheries Science Center, Miami, for major contributions to human resource management at the center;

Roy William Eckert, Mary E. Kenefick, Dorothy Louise Manis and Monica E. Shepherd, Office of Administration, Silver Spring, Md., for reducing NOAA's rental space obligations in the Washington metro area:

Terri E. Fleming, NWS's Management and Budget Office, Silver Spring, Md., for developing a nationwide professional development program for the NWS scientific and technical workforce;

William F. Graham, OAR's Office of Oceanic Research Programs, Silver Spring, Md., for work in *continued on page 6*



NOAA Corps Rear Admiral F.D. "Bill" Moran presents retired Brigadier General Robert T.S. Colby with the gold wings of a NOAA Corps aviator for his many years of service to the youth of America. Gen. Colby has been the director of the U.S. Aerospace Career Education Service, an organization that provides low-cost Federal Aviation Administration-sanctioned training to young people during the summer. Young members of the U.S. Naval Sea Cadet Corps and the Civil Air Patrol have enjoyed the benefits of this program. Some of these youngsters have gone on to earn their Civilian Private Pilot permit as a result of completing the FAA Aviation Ground School program, directed by Gen. Colby. Colby is the first person to be named an honorary NOAA Corps aviator.

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shaping and developing a coastal ocean environmental research program to support scientifically sound decision making;

Duane Allen Hazen and William Madsen, OAR's Environmental Technology Laboratory, Boulder, Colo., for his role in a highly successful cloud and climate experiment in Papua New Guinea;

Robert H. Kidwell and Carla A. Steinborn, Office of Administration, Silver Spring, Md., for helping modernize NOAA's computing infrastructure by developing ways to efficiently acquire new technology;

George L. Kinter, NOS's Damage Assessment Center, Silver Spring, Md., for outstanding work in developing and managing the Natural Resource Damage Assessment Program;

Solomon L. Lewis Jr., NOAA Corps, Atlantic Marine Center, Norfolk, Va., for exemplary and dedicated service as yeoman on the NOAA Ship *Mt. Mitchell;*

John Lee Lillibridge, NOS's Coast and Geodetic Survey, Silver Spring, Md., for outstanding achievement in creating and implementing NOAA's operational ERS-1 satellite altimeter system;

Stephen J. Lord, NMC's Development Division, Camp Springs, Md., for work in developing a forecast system for tracking tropical cyclones;

Mark A. McCloy, NWS's AWIPS program, Silver Spring, Md., for his contributions toward developing an interactive system that weather forecasters will use to improve severe weather forecasts and warnings;

Carla Moore, NESDIS's National Geophysical Data Center, Boulder, Colo., for national leadership in building high-quality marine geological databases;

John W. Patton, NWS's San Antonio (Tex.) office, for work he

performed in December 1991 and January 1992 when a series of torrential rain storms swept through south and central Texas;

William G. Pichel, NESDIS's Office of Research and Applications, Suitland, Md., for work in implementing the Coast Watch element of NOAA's Coastal Ocean Program;

Robert C. Richey, NWS's Western Region, Salt Lake City, Ut., for his leadership of the regional Data Acquisition and Meteorological Services Divisions;

Jacob M. Robinson, NESDIS's Office of Research and Applications, Suitland, Md., for contributions to research and development of satellite data applications to improve the forecasting of heavy precipitation and flash flooding;

Doris A. Rotzoll, NWS's Spaceflight Meteorology Group, Houston, for her leadership of the group, which developed computerized weather forecasting support for space shuttle flights;

Sarah S. Roy, NMC's Central Computer Branch, Suitland, Md., for her work as branch chief;

Julie Anne Scanlon, NWS, Silver Spring, Md., for outstanding contributions to the NWS modernization effort, as a paralegal specialist;

Verna Shuler, NESDIS's National Climatic Data Center, Asheville, N.C., for contributions to substantial cost savings in administering a multimillion dollar contract, saving more than \$130,000;

Leona D. Stevenson, NMFS Southwestern Fisheries Science Center, La Jolla, Calif., for work in suggesting and implementing office procedures and intra-regional communications to promote the team concept;

Daniel J. Twohig, NMFS, Seattle, for achieving fisheries service goals in direct assessment of fish stocks in the north Pacific;

Fortune Vilcko, NWS Hicksville (N.Y.) office, for her work in develop-

ing telecommunications systems for the National Weather Service;

Joseph S. Wakefield, OAR's Forecast Systems Laboratory, and Dennis S. Walts, OAR's Advanced Development and Demonstration Laboratory, Boulder, Colo., for contributions to the development of a new weather forecasting workstation that is a critical element in NWS modernization;

Maurice Ward, NMFS, Silver Spring, Md., for contributions to the fisheries service's equal employment program;

Phil Williams, NMFS's Office of Protected Species, Silver Spring, Md., for accomplishments in developing and implementing a national program to protect sea turtles;

Don Wuerch, NWS Buffalo (N.Y.) office, for his work with the NWS modernization and restructuring effort;

Vincent S. Zdanowicz, NMFS's James J. Howard Marine Science Laboratory, Sandy Hook, N.J., for work in analytical chemistry of marine materials.

ADMINISTRATOR'S AWARD

These NOAA employees were awarded NOAA's Administrator's Award:

Donald W. Beran, OAR's Environmental Technology Laboratory, Boulder, Colo., in recognition of his unique ability to conceive, initiate, coordinate and successfully implement major projects that are critical to the Commerce Department's mission;

Jack R. Brett, NOAA Corps, Pacific Marine Center, Seattle, for work in providing administrative support to the NOAA Pacific fleet; continued on page 8

The interview with NOAA Deputy Under Secretary Diana Josephson will appear in the next issue of NOAA Report.

CFC Substitute Called 'Ozone Friendly' by NOAA Scientists

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puter modeling calculations were
made by NOAA senior scientist Susan
Solomon, assisted by University of
Colorado graduate student Michael
Mills. All work was carried out at
NOAA's Aeronomy Laboratory.

'Zero Ozone Depletion'

"Because HFCs contain no ozone-destroying chlorine or bromine, they were assumed to have ozone depletion potentials of zero," lead author A. R. Ravishankara explained.

"Recently, however, some scientists have suggested that HFCs containing a combination of fluorine and carbon that is unusually stable may cause a special kind of fluorine-catalyzed ozone loss. If this were true, many HFCs and possibly even a few currently acceptable hydrochlorofluorocarbons, or HCFCs, could have high ozone depletion potentials. This would have required development of new substi-

Groundfish Plan

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The "time outs" would increase over the next five years;

- □ A requirement, to be phased in, that certain vessels install a vesseltracking unit. However, vessel owners will have the option of selecting fishing limitation methods not requiring a tracking system;
- A prohibition on pair-trawling, a method whereby two boats pull a single net between them;
- A requirement that vessel operators and fish dealers obtain Federal permits and report catch data to NMFS.

Yearly Adjustments Proposed

The amendment includes a proposal to let the fishery management council make yearly adjustments of management measures to meet the plan's goals.

tutes, with wide-ranging negative impacts on industrial production and international agreements to save the reactions.

These measured values were then used in a computer model to calculate

"We are happy to confirm scientifically that...[these CFC substitutes] are indeed ozone-friendly," Ravishankara said.

ozone layer.

"We are happy to confirm scientifically that this is not the case and that HFCs are indeed ozone-friendly," Ravishankara said.

Scientists at the Aeronomy
Laboratory used a pulsed photolysis apparatus equipped with pulsed laserinduced fluorescence detection and, separately, a low-pressure flow tube coupled to a chemical ionization mass spectrometer detector to study the most critical chemical reactions thought likely to destroy stratospheric ozone. To ensure their measurements were correct, the scientists used both methods to study the critical chemical

ozone depletion potentials of the most commonly used HFCs.

67,000 Times Less Destructive

Ozone depletion potential is a scientific index of a chemical compound's ability to deplete stratospheric ozone relative to CFC-11, one of the most commonly used chlorof-luorocarbons.

The researchers found that the ozone depletion potential for the key substitute HFC-134a, for example, is 1.5 x 10⁻⁵. This means it is estimated to be about 67,000 times less capable of destroying ozone than the standard CFC-11.

Proposal Will Benefit Food Bank

Small Fish May Be Donated to Needy

eedy persons across the country may be eating a fish usually found as an expensive entree at gourmet restaurants, if a two-year NOAA-managed pilot program goes into effect as planned.

The proposal would allow certain commercial fishermen to keep more undersize swordfish than they are now allowed to retain, and donate them to specified dealers. The dealers, in turn, would give the fish to the Chicagobased Second Harvest food bank network for distribution to the needy. Second Harvest has been involved with feeding programs nationwide since 1979.

Under current regulations, fishermen must throw back all undersize swordfish they catch, except for a "trip allowance" limited to 15 percent of the total number of swordfish caught on one trip.

Under the pilot program, which the fisheries service hopes to implement early this year, the swordfish could be unloaded only at specified fish dealers. They could not be sold or traded.

Schmitten said the program would start with fish caught in the Gulf of Mexico and gradually expand to several areas off the East Coast and into the Caribbean Sea.

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concerns expressed by New England fishermen, NOAA will conduct an experimental fishing operation in the newly expanded area.

Scientists with NOAA's National Marine Fisheries Service said that tight restrictions are needed because the valuable haddock stocks have been heavily overfished, with landings this year at an all-time low. The most recent statistics from the fisheries service project that 1993 haddock landings will be about 900 metric tons. As recently as 1992, haddock landings, although low by historic standards, were about 2,200 metric tons. This compares to catches of 50,000 tons that were common in the past.

Satellite Controller Saves Life: Ron

NEWS BRIEFS

Rademacher, a satellite controller with NOAA's Satellite Operations Control Center in Suitland, Md., has been honored as a Good Citizen by the Maryland State Police for saving a man's life.

Rademacher and his wife Lynn were driving to their home in Prince Frederick County, Md., last summer when they came across an automobile accident. Thomas Dresser, 21, had failed to negotiate a curve in the road and crashed into a tree.

Rademacherrantothe scene while his wife drove home to dial 911. To make sure Dresser had an unobstructed airwayfor proper breathing, Rademacher reclined the driver's seat. After it became apparent that this position obstructed breathing, he returned the seat to its original position. Rademacher stayed with the victim until paramedics arrived. Dresser's neck was broken and his liver lacerated.

Rademacher received a plaque at a recent ceremony.

Focus On...

Annual Commerce and NOAA Awards

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Jane D'Aguanno, NESDIS's Office of the Assistant Administrator, Suitland, Md., in recognition of her contributions as science and technical program coordinator;

Gilly A. Elsea, Office of Administration, Norfolk, Va., for outstanding performance in relocating the NOAA Aircraft Operations Center and assisting NOAA employees after Hurricane Andrew;

Mary M. Glackin, NWS's Office of Meteorology/Program Requirements and Development Division, Silver Spring, Md., for dedication and service in support of the NWS modernization program;

Margaret Ann Gross, NWS's Riverside (Calif.) office, for outstanding fire weather forecasting during the massive fires earlier this year in southern California:

Timothy K. Helble, NWS's Office of Hydrology, Silver Spring, Md., for leadership in development of an innovative planning document describing training, policy, technology and staffing of the modernization of NWS hydrologic operations;

Natalie B. Huff, NMFS, Silver Spring, Md., for significant contributions of management and administrative support to the agency;

Kevin R. Kay, NWS's Systems Evaluation Branch, Silver Spring, Md., for exceptional contributions to the development of the new Doppler Radar;

Janice L. Kolk, Office of Administration, Boulder, Colo., for contributions to NOAA's Personnel Data Systems since 1980;

Shaw Liu, OAR's Aeronomy Laboratory, Boulder, Colo., for key scientific contributions to understanding the sources of tropospheric ozone and the chemistry of the global troposphere; **Gino Moro,** NMFS's Office of Enforcement, Gloucester, Mass., for exceptional leadership in marine law enforcement:

Russell E. Nelson Jr., NMFS's Alaska Fisheries Science Center, Seattle, for significant contributions to management of northern Pacific fisheries:

Joyce A. Peters, NMC's Development Division, Camp Springs, Md., for her effort and initiative in providing support for the division's budget programs;

Friedrich G. Rehrl, Office of Administration, Seattle, for efforts and improvements in the NOAA Personal Property Management Program;

Terrance L. Seldon, OAR's Information Management Division, Silver Spring, Md., for his efforts to make computer training available to a greater number of inner-city precollege students;

Pamela M. Taylor, NESDIS's Office of Research and Applications, Suitland, Md., for work in incorporating Defense Department satellite data into NOAA's weather and climate systems;

Gloria D. Thompson, NMFS, Silver Spring, for administrative excellence and quality support. NO ARE PROPERTY MANAGEMENT OF A CHIFTCE SILVER SIL